283 411 /466/ brought back the bowstrings are now missing. Of the two in the Peabody Museum Lothrop (b):156 says that their "bowstrings are of guanaco-sinew" /cited in English/ (169). The latter,

> 169. In a few older reports they are erroneously said to be "gut."

known as sáli, are attached exactly as they are on the bow of the Selk'nam, namely, at one end by means of a running knot and at the other by being wound around it several times (see Fig. 31 in Vol. I, 231). A strip of leather as a bowstring is obviously much less elastic.

β. The Arrow

411 The navigators of earlier times repeatedly saw the arrow in the hands of these Fuegians, but instead of describing it in detail, most of them were content to mention it briefly. Weddell noted few details. [171] The arrow of the Yamana also resembles that of the Selk'nam in every respect; the latter is in general somewhat longer. Lothrop (b):155 calls it "short, clumsy, and untapered -- very crude indeed compared with Ona workmanship" /cited in English/. As far as I know, there is not an arrow preserved anywhere from olden times, and the available descriptions from the last decades are more or less inadequate. For whatever I have been able to discover about this at one time significant weapon, I am indebted chiefly to old Whaits, who, as a young man, made a few samples of them. Personally I did not succeed in seeing an arrow made by the hand of a Yamana.

Here, too, as on Isla Grande, they choose the small stems [824] of Berberis ilicifolia, sometimes even the branches of Maytenus magellanica for the arrow shaft. Hence it is also called ajyaku, 411 a name for the latter tree. The stick, still green, is given its 322 final shape by constant scraping with a sharp-edged mussel shell. The middle third bulges slightly in contrast to the two ends. The high polish and final smoothing of the surface of the shaft is obtained by a gentle rubbing with pumice. Before that the man repeatedly straightens it by holding it between his teeth and

/466 cont./

441 322 elastically bending the parts that stand out. Painstakingly and carefully he must now cut a notch at either end; the one for the arrowhead is deep and sharp-edged, the other shallow and rounded. This is accomplished by means of protracted rubbing and filing with a small splinter of sandstone or with the rough edge of a mussel shell.

441 324 Slate, as well as quartz, is found in various places on the Cape Horn Archipelago, and both kinds of stone are used for the arrowheads, known as ĕkĕna, inix, yĕlkus. Slate is the easiest to work. The Indians choose a suitable small slab of stone, and, scraping it on a fine-grained piece of sandstone, they try first to obtain the desired triangular shape with the sharp edges on both sides which converge in a flat point. Afterwards they carefully fashion the perfectly rectangular tang. /467/ These points always turn out to be small. Their total length is about 30 millimeters, seven millimeters of which apply to the tang; the largest distance between the lateral corners is around 15 millimeters (Fig. 32).

Sometimes the arrowheads of quartz (170) are a little

170. Fitz-Roy (a):139 speaks in general of "arrows headed with obsidian, agate, or jasper" /cited in English/, which is more or less correct.

longer, and the base of the triangle is a slightly curved arch. In order to achieve this and to fashion the necessary tang, the Yamana (171) proceeds exactly as does the Selk'nam. He hangs

171. Wieghardt: 26 erroneously believes that "the Ona make these points, because the Yahgan do not know how to work either glass or obsidians" /translated from Spanish/.

a soft /Fig. 32 appears here/ scrap of leather over his left palm and with this he grasps the suitable stone splinter with thumb and index finger. While he works he rests his left fist against his thigh. His right fist grasps a small blunt stick of bone which he

/471 cont./

411 part that remains, he lifts out the core (Fig. 34). These
313 layers of wood are neither too flexible nor completely stiff, but are slightly springy and absolutely sound.

411 Through endless scraping with quartz splinters, sharpened mussel shells, or the knife, enough of the
322 long pole is whittled off so that it is about 25 milli-
[342] meters in diameter and precisely octagonal. Attention is given to this because of a definite esthetic feeling, but also the edges make it possible to grasp the shaft more firmly and safely. The shaft tapers gradually toward the bottom and terminates in a blunt end. On top they carefully cut a notch 12 centimeters deep. For the final polishing of the shaft, it is rubbed with pumice, hiyal, very uniformly and with gentle pressure. To the end the shaft (176) is from 2.80 to 3.10 meters long.

176. Weddell (a):96 has furnished an exact description: "Their spears consist of firm bone, are seven feet long, sharply pointed, and have a barbed hook on one side, four inches from the point which... is fastened to a wooden shaft ten feet long and smooth and straight. A shorter or longer strip of skin is fastened to the bone." Snow (a):II, 15 supplements: "Their spears were about 12 feet long, made of hard wood, octangular, but about half an inch thick and one inch broad, tapering at one end to a point, and the other end to a butt" /cited in English/.

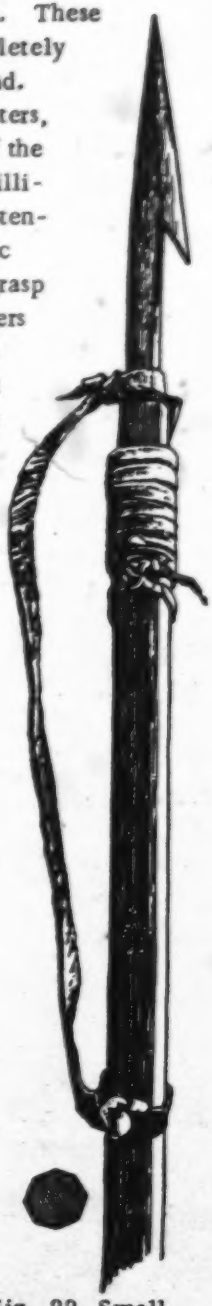

Fig. 33. Small Harpoon.

/472 cont./

these large bone points of the small harpoon. Sometimes one of them will turn out somewhat unsymmetrical or bent to one side when the natural curvature of the whale rib could not be completely obliterated by grinding. The lower /473/ jawbone, iseska, of the whale is most highly prized. It can be made into a very hard and quite symmetrical point which also has a more accurate aim (178).

178. Bridges (k):14 mentions: "Points for lances are made from the jaw of the whale" /translated from Spanish/. On the subject

[322]

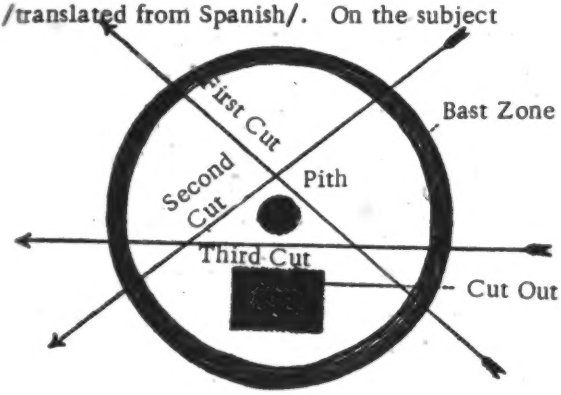

Fig. 34. Diagram Showing How a Shaft is Cut Out.

of making harpoon points, Hyades (q):355 makes the more general statement that "the Fuegians use a bone of the whale or sometimes a seal bone, but the bones of whale are preferred" /translated from French/. Earlier Snow (a):II, 361 reported: "Their principal spear-heads are entirely constructed of hard bone, and are about seven inches long, finely pointed, with a barb on one side four inches from the point" /cited in English/.

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/501 cont./
several of these small bags and described them in detail, as did Lothrop (b): 133. Compare Spegazzini (a): 162 and Colini:238.

the freshly removed bird skin inside out so that the feathered side is on the inside.

Dried pieces of gut and the dried stomach of smaller seals are also used as small bags. They are popular as containers for pigments and liquid blubber, for they are impermeable. These things are known as yáj (Fig. 20).

415 The above-mentioned articles of leather and skin are neither very strong nor particularly durable. Even more fragile and delicate are the buckets and smaller vessels made of bark. Such containers are not suitable for the type of life led by the Selk'nam; however, they are serviceable for the Yamana because they can be easily kept in the canoe and taken along. There is a larger type, kā́la, x̌ā́la, and a smaller, tū́ku. BD:201, 469 also distinguishes between kā́la, "a bark bucket," and tū́kū, "a bark bailer" /cited in English/. The complete name for the large pail is ajyū́šu x̌ā́la in the western dialect, and á́ta, x̌ā́la in the eastern dialect.

415 322 When one wants to make a pail, he peels a ring out of the bark of an evergreen beech with the usual bone tools. The outer rind and the inner dry bark fibers are scraped off; then all the edges are cut very evenly. Before the piece of bark curls up by drying its longitudinal edges are sewed together, carefully well overlapped. A round bottom of the same bark is set in and secured by means of a seam that runs all the way around. To prevent the upper edge from tearing a flexible strip of the soft wood layer of [824] Drimys winteri is placed around it and sewed on. Whalebone strips [283] as well as thin bundles of bast-fiber are used to sew it. A short leather strap or a braided rush cord is knotted above the opening as a handle. This makes it easy to handle the bucket which is up to 30 centimeters high and has a diameter of 13 centimeters (Fig. 48). For /502/ smaller vessels they take the bark of [824] Drimys winteri and even of Maytenus magellanica, both of which have less tendency to curl because their bark is thicker than that of beeches. For these they do no more than make a longitudinal seam and set in a

/502 cont./

415 bottom. /Fig. 48 appears here./

322 In order to prevent irregular curling and deep splits in the damp bark of the newly finished kā́la, they stuff wet moss mixed with fresh grass into it, exerting considerable pressure, and filling the entire bucket with it. Moreover, they avoid having it heated unevenly by the hut fire or by the sun. Along with the wet filler, the bark dries very gradually, preserves its shape, and keeps perfectly for a long time. In the case of the large bark receptacles, they sometimes press a few extra small moss plants between the individual seams as filler (215).

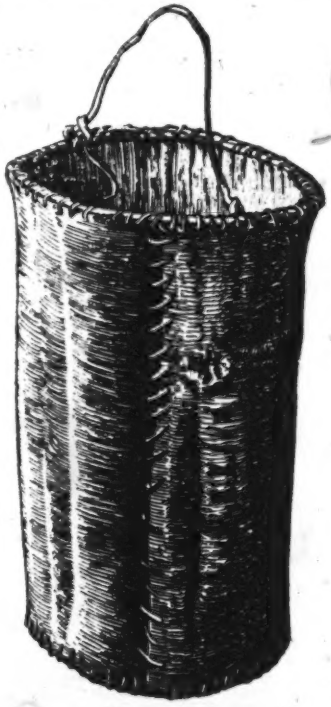

Fig. 48. Bark Pail.

215. Lothrop (b):132 mentions: "In general the Yahgan buckets are taller in proportion to their width than those of the Alacaluf" /cited in English/. I cannot confirm this statement from my own experience; there does not seem to be a difference.

415 The small bark receptacles are used as cups and water dippers; they have no other use. All kinds of implements are sometimes temporarily stuffed into the large buckets that hold at least five liters, but their real purpose is to serve as containers for water. This not so much for people who have settled down in a hut on the shore as for those who are setting out for a trip in their canoe. Although it may sound unbelievable, tight bark buckets actually hold a small amount of water for several hours. The older girls primarily take care of scooping out the water that oozes into the canoe with their little bark receptacles; they also fetch drinking

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

412

lákel in Ona,—but there is no means of determining which tribe was the inventor.

3. HAMMER AND GREASE STONE.—On old camp-sites numerous smooth, water-worn stones can be picked up. They were used as hammers to break open various shellfish, and also they served as anvils for cracking hot marrow-bones to allow the grease to solidify on the cool surface, whence it could be scraped up and eaten.

4. BROOM.—The Yahgan housewife today occasionally sweeps out her domicile, employing for that purpose the wing of some large bird such as a goose. This custom probably is not aboriginal, but is rather the result of missionary contact.

5. COMB.—The Yahgan sometimes comb their hair, and for this they make rude combs (*ushlánim*) of whalebone or employ the jaw of a porpoise. Combs of both types are illustrated in fig. 54, *a*, *b*.

[302]

6. SPATULA.—Another article for beautifying the person, found in the well-ordered Yahgan house, is a small spatula (*telákikamána*) used for painting the face and body. One of these appears in fig. 69, *d*.

FIG. 55.—Yahgan bark bucket. Height, 12¼ in. (14/2267)

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7. BUCKET.—Under the Ona manner of existence a bark bucket (fig. 55) would have been of little service, for it would soon be broken under the exigencies of their system of transport; but the Yahgan found the bucket (*atakála*) an extremely valuable object, and used it to bail their canoes and to store water in their camps. Like the canoe itself the bucket was made from the bark of the evergreen beech, but while the canoe was man's work, the bucket was woman's work. Hence the bark for the bucket was removed from the tree with the woman's barking tool (*téshupu*), which is a chisel-like device made from the leg-bone of the guanaco (fig. 68). The inner fat lining of the bark was then scraped off, and a rec-

[412]

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

tangular piece was cut for the sides and a circular piece for the bottom of the bucket. Narrow strips of whalebone were then scraped thin and pliable, and the bottom and sides were sewn tightly together (fig. 56, *b*). Around the inside of the lip a strip

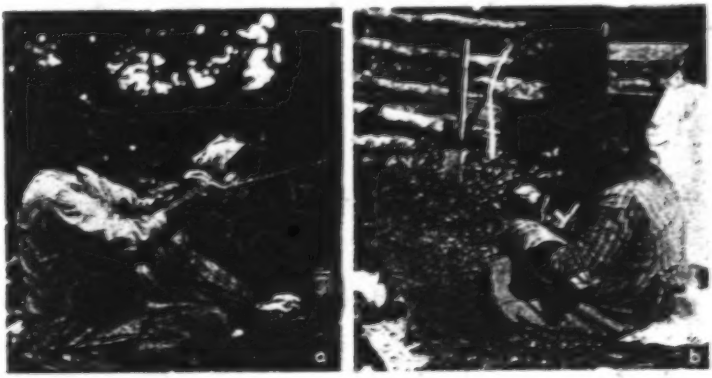

FIG. 56.—Yahgan women. *a*, Rope-making; *b*, Making a bark bucket.

of wood—*leña dura*, Winter's bark, or barberry—was introduced to give additional strength and to prevent the bark from splitting. Finally a hide thong was attached to serve as a handle, and the whole outside was painted red.

In general the Yahgan buckets are taller in proportion to their width than those of the Alacaluf. The Alacaluf seem to have been better craftsmen than the Yahgan, hence their buckets are usually more neatly finished.

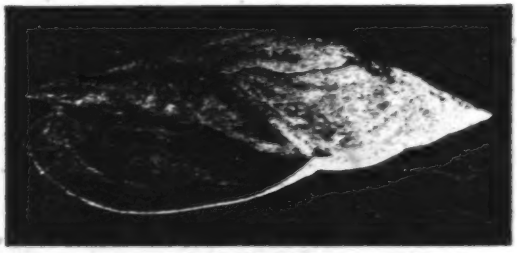

FIG. 57.—Yahgan shell cup. Length, 6¼ in. (14/2372)

8. CUP.—A Yahgan refinement over the Ona is the use of a shell cup (*auflán*). As seen in fig. 57, this is nothing more elaborate than a simple shell, its shape in no way modified. Such a receptacle could be used to dip water from a bark bucket, but would have been of little service in removing water from the Ona skin water-bag.